



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/576,159

06/26/2006

Allon Guez

DREX-1007US

2196

21302 7590 09/25/2008

KNOBLE, YOSHIDA & DUNLEAVY

EIGHT PENN CENTER

SUITE 1350, 1628 JOHN F KENNEDY BLVD

PHILADELPHIA, PA 19103

EXAMINER

CHANG, SUNRAY

ART UNIT

PAPER NUMBER

2121

MAIL DATE

DELIVERY MODE

09/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,159	Applicant(s) GUEZ ET AL.	
	Examiner Sunray R. Chang	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060726 20060928</u> . | 6) <input type="checkbox"/> Other: _____ |

P.O. Box 1450, Alexandria, Virginia 22313-1450 – WWW.USPTO.GOV

Examiner's Detailed Office Action

1. This Office Action is responsive to communication, filed on April 17th, 2006.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted to disclose 37 C.F.R. 1.56 all pertinent information and material pertaining to the patentability of applicant's claimed invention, on July 26th, 2006 and September 28th, 2006 have been considered by the examiner.

Claim Objections

3. Claims 6, 12 and 19 have been given objection under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

As claimed in claims 4, 10 and 17, "knowledge based model is derived using one or more of formulations"; in claims 5, 11, and 18 indicate "knowledge based model is an optical power propagation model"; claims 6, 12 and 19 claim "optical power propagation model is derived using one or more of formulations"; claims 6, 12 and 19 fail to further limit the limitations in the claims they depending from.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claim(s) 1 – 3, 7 – 9, 14 – 16 and 20 – 22** is/are rejected under 35 U.S.C. 102(e) as being anticipated by Harold Cook et al. (U.S. Patent No. 7,068,891, and referred to as **Cook** hereinafter).

Regarding **claim(s) 1 and 14**, **Cook** discloses,

- a system for the automation of one or more of the design, assembly and packaging of optoelectronic devices [a stage positioning system and method for aligning optical components, Abstract; see detail in col. 3, lines 41 – 45, 51 – 57; col. 4, line 51 – col. 5, line 14; col. 6, lines 36 – 41, 52 – 55; col. 7, lines 13 – 23; col. 10, lines 57 – 63 and col. 15, line 23 – col. 16, line 35, as further indicated below] comprising:
 - (a) an automated manipulation device configured for the manipulation of an optoelectronic device component; [fig. 7; col. 6, lines 3 – 5; control system, col. 15, lines 23 – 29]
 - (b) a knowledge based model derived from a set of one or more parameters for said optoelectronic device; [upload necessary parameters for the select mode, col.15, lines 23 – 29]
 - (c) a database for storing said knowledge based model; [downloading, col.15, lines 23 – 29]

Art Unit: 2121

(d) a measuring device for taking a measurement of one or more parameters of at least one component of said optoelectronic device; [memory stores calibration data related to the second pivot point for increasing the accuracy of moves of the second stage assembly, col. 4, line 51 - col. 5, line 14] and

(e) a controller for managing said automated manipulation device, said controller enabled to receive information from said database; [additional parameters are downloaded, col. 15, lines 23 – 29] wherein said controller comprises an initial set point device which utilizes said knowledge based model to determine an initial set point for said automated manipulation device, [move to a position which facilitates mounting the DUT, the standby position, col. 15, lines 30 – 42] and a servo-feedback loop which utilizes said measurement of one or more parameters of at least one component of said optoelectronic device to determine a manipulation of at least one component of said optoelectronic device. [a limit sensor are connected to the control system for feedback to indicate the position, col. 10, lines 54 – 63]

Regarding **claim(s) 2, 8, 15 and 21**, **Cook** discloses, a system according to claim 1, wherein said one or more parameters comprises

- one or more parameters selected from the group consisting of optical waveform characteristics and optical waveform features. [waveguide, col. 15, line 66 – col. 16, line 12]

Regarding **claim(s) 3, 9, 16 and 22**, **Cook** discloses, a system according to claim 2, wherein the knowledge based model comprises

Art Unit: 2121

- a model employing one or more of optical power, optical intensity, optical phase and optical polarization. [col. 16, lines 13 – 26 and further 27 – 35]

Regarding **claim(s) 7, 13 and 20**, **Cook** discloses, a system according to claim 1, further comprising

- a learning loop which makes adjustments to said knowledge based model based on actual experience in one or more of the design, assembly, packaging, use and maintenance of said optoelectronic device. [a loop for optimizing a channel of the fiber array, col. 14, lines 10 – 19; further see col. 15, line 66 – col. 16, line 12]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. **Claim(s) 4 – 6, 10 – 13 and 17 – 24 is/are rejected** under 35 U.S.C. 103(a) as being unpatentable over **Cook**, and in view of James R. Leger (U.S. Patent No. 5,454,004, and referred to as **Leger** hereinafter).

Art Unit: 2121

Regarding claim(s) 4, 6, 10, 12, 17, 19 and 23,

Cook teaches a knowledge based model.

Cook does not teach the model is derived using one or more of a Rayleigh-Sommerfeld formulation, an angular spectrum solution to a Rayleigh-Sommerfeld formulation, a Ray formulation, a Gaussian formulation, a Fraunhofer Field Formulation, a Fresnel Field formulation, and vector solutions to Maxwell's equations.

Leger teaches a Rayleigh-Sommerfeld [The resulting field of the selected profile propagated through the gain medium (and any other internal optics) to the phase plate is calculated by the Rayleigh-Sommerfeld diffraction formula, col. 11, line 58 – col. 12, line 21] to return the phase conjugate of this calculated distribution [col. 12, lines 22 – 24]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Cook** to include "a Rayleigh-Sommerfeld formulation", to return the phase conjugate of this calculated distribution [col. 12, lines 22 – 24].

Regarding claim(s) 5, 11, 18 and 24, Cook teaches a system wherein

- the knowledge based model is an optical power propagation model. [col. 16, lines 13 – 26; col. 16, lines 27 – 35]

Regarding claim(s) 13 and 20 – 22, which have also been rejected in 103(a), using only **Cook** reference, the rejections can be found above within 102(e) section.

Art Unit: 2121

Correspondence Information

6. Any inquires concerning this communication or earlier communications from the examiner should be directed to Sunray Chang, who may be reached Monday through Friday, between 6:00 a.m. and 3:00 p.m. EST. or via telephone at (571) 272-3682 or facsimile transmission (571) 273-3682 or email sunray.chang@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful in the regular office hour, the Examiner's Supervisor, Albert Decady, may be reached at (571) 272-3819.

Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

Finally, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Moreover, status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) toll-free @ 1-866-217-9197.

Sunray Chang

Art Unit 2121

U.S. Patent & Trademark Office

/Albert DeCady/

Supervisory Patent Examiner, Art Unit 2121

September 25, 2008
